SOLOMON, I., ing.; MARINCU, M., ing.; APOSTOLEANU, Vasilica, ing.; CRISTEA, S. NIETZ, K.; GEIB, A.; BARDUT, I.; REIMER, H., ing.; MIHAILESCU, M., ing.

Improving the finishing technological processes of woolen fabrics, Pt.1. Ind text Rum 12 no.5:199-205 My*61

1. Institutul de cercetari textile (for Solomon). 2. Industria Linii, Timiscara (for Marincu). 3. Dorobantul, Ploiesti (for Apostoleanu, Cristea). 4. Postavaria Romina, Bucuresti (for Nietz) 5. Fabrica de postav, Buhusi (for Geib). 6. Libertatea, Sibiu (for Bardut). 7. Partizanul Rosu, Brasov (for Reimer, Mihailescu).

Some improvements in ...

S/194/62/000/002/089/096 D271/D301

cillogram with a radius drawn from its center for two curves; these are obtained in the first method by exchanging parts played by frequencies f_1 and f_2 , and in the second method by varying amplitudes a and b of the scanning voltages f_1 and f_2 , in such a manner that at the beginning a>b and then b>a. The ratio of the numbers of intersections gives the required ratio of frequencies f_1 and f_2 . Abstracter's note: Complete translation.

Card 2/2

S/194/62/000/002/089/096 D271/D301

AUTHOR:

Popovic, Vajin, and Marincić, Aleksander

TITLE:

Some improvements in the methods for measuring frequency by means of an electronic oscillograph

PERIODICAL:

Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-7-239kh (Publ. Elektrotechn. fak. Úniv. Beogradu, Ser. Telekomun. i elektron., 1960, no. 22, 11 pp.)

TEXT: When frequency ratio f, fo is determined with an oscillograph by the method consisting in anode modulating with f2, the circular scanning frequency f2, or by the method of superposition of two scanning frequencies f_1 and f_2 , and thus obtaining cycloids, the counting of very numerous loops is made even more difficult because of the rotation of the display on the screen. It is suggested that instead of loops, intersections be counted of the os-Card 1/2

L 5397-66							
ACC NR: AP5027401	하게 15명 등					<i>/</i>	
potential barrier emitted electron and tor. In conclusion for proposing the cipants in a seminary	nd the uncompensation, I consider it makes to the consider it makes to the constant of the con	ted positive my pleasant o stant intere	charge remai duty to thank at in the wor	ning in V. L. k. and a	the semico Bonch-Bruye also the pa	nduc- vich %% rti-	·5.
figure, 43 formulas							
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SUB CODE: SS/	SUBM DATE:]	L5May65/	ORIG REF:	005/	OTH REF:	003	
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		L5Kay65/	ORIG REF:	005/	OTH REF:	003	
		L5Kay65/	ORIG REF:	905/	OTH REF:	003	
		L5Kay65/	ORIG REF:	005/	OTH REF:	003	

L 5397-66 EWA(h)/EWT(l)/T IJP(c) AT

ACC NR: AP5027401 SOURCE CODE: UR/0181/65/007/011/3246/3254

AUTHOR: Harinchuk, M. Ye. 44,55

ORG: Hoscow State University (Moskovskiy gosudarstvennyy universitet im. H.

Lomonosova) 44,55

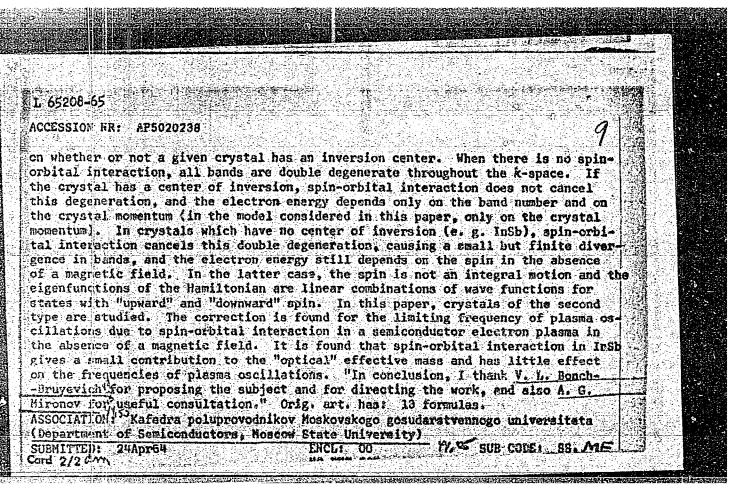
TITLE: Photoemission from heavily doped semiconductors. Calculation of the interaction between electrons

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3246-3254

TOPIC TAGS: photoelectric effect, electron emission, emission threshold, semiconductor theory, electron interaction

ABSTRACT: The author considers the unshielded Coulomb interaction between electrons for the case of the surface photoelectric effect in heavily doped semiconductors due to the potential jump at the semiconductor-vacuum interface. An expression is derived for the photocurrent and the effect of the electron interaction on the photoelectric threshold is discussed. It is found that this emission threshold is shifted toward the high-frequency side since the chemical potential is lowered and the

Card 1/2



EWT(1)/T/EWA(h); IJP(e) AT ACCESSION NR: AP5020238 533.951.2 AUTHOR: Marinchuk, M. Ye. 44,55 TITLE: Effect of spin-orbital interaction on the frequencies of plasma oscilla tions in assiconductors 31,41,55 SOURCE: Hoscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 5, 1965, 144-49 TOPIC TAGS: semiconductor theory, spin orbit coupling, plasma oscillation, electron plasma ABSTRACT: Plasma oscillations are studied in materials where spin-orbital interaction takes place in the absence of a magnetic field. The author explains how spin-orbital interaction affects the frequencies of plasma oscillations. The methol of Green functions, proposed in a previous publication (Bonch-Bruyevich, V. L., Trablikov, S. V., "The Method of Green Functions in Statistical Machanics," Moscow, Fismatgis, 1961), is used in solving this problem. In approximating the effective mass, a single-band model is used -- the conduction band for the electrons Spin-prolital interaction manifests itself in various ways in crystals, depending

MARINCHUK, L. V.

"Improvement of the Breed Qualities of Steds of Hybrids via Raising Flants under Diverse Conditions and Subsequent Cross-Pollination of Their Progeny." All-Union Diverse Conditions and Subsequent Clast imeni T. D. Lysenko, Odessa, 1952 Oder of Labor Red Banner Selection-Genetic Inst imeni T. D. Lysenko, Odessa, 1952 (Dissertation for the Degree of Candidate of Agricultural Sciences)

So: Knizhnava Petopis', No. 32, 6 Aug 55

Crystal lattice ... S/181/63/005/002/031/051 B102/B186

most important English-language references are: A. A. Maradudin et al. Ann. Phys. 15, 337, 360, 1961; T. Matsubara, Progr. Theor., Phys. 14, 351, 1955; J. M. Luttinger, J. C. Ward, Phys. Rev. 118, 1417, 1960; A. Klein, Phys. kev. 121, 950, 957, 1961.

ASSOCIATION: Institut fiziki i matematiki AN MSSR, Kishinev (Institute of Physics and Mathematics AS MSSR, Kishinev)

SUBMITTED: September 17, 1962

Card 3/3

Crystal lattice ... $\frac{S/181/65/005/002/051/051}{B102/B186}$ $\Psi-\Psi_{0}=-\frac{1}{\beta}\int_{0}^{1}\frac{d\lambda}{\lambda}\int_{0}^{\beta}d\tau_{1}d\tau_{2}\sum_{k,j,l}D_{k}^{l,l'}(\tau_{1}-\tau_{2})\times\\ \times\left\{\frac{1}{3}\prod_{k}^{l,l'}(\tau_{1}-\tau_{2})+\frac{1}{4}\prod_{k}^{l,l'}(\tau_{1}-\tau_{2})\right\}.$ $(1j) \text{ or } \\ \Psi-\Psi_{0}=-\frac{1}{\beta}\int_{0}^{1}\frac{d\lambda}{\lambda}\sum_{\omega_{n}}\sum_{k,l,l'}D_{k}^{l,l'}(\omega_{n})\left\{\frac{1}{3}\prod_{k}^{l,l'}(\omega_{n})+\frac{1}{4}\prod_{k}^{l,l'}(\omega_{n})\right\}$ lattice potential in harmonic approximation and $U(\beta)$ is the evolution operator $U(\beta)=T\exp\{-\int_{0}^{\infty}U_{k}(\mathbf{r})d\mathbf{r}\}, \quad \beta=1/T$, c is the coherence index; j is the number of the lattice vibration branch, $D_{kk'}(\tau-\tau')=\delta_{k,-k'}D_{k}^{l,l'}(\tau-\tau')=\langle T\varphi_{k}(\tau)\Psi_{k}(\tau)U(\beta)\rangle_{c}.$ (8), the polarization operator satisfies the Dyson equation $\frac{1}{M}U^{l'}(\tau-\tau')=\prod_{k}^{l,l'}(\tau-\tau')+\prod_{k}^{l,l'}(\tau-\tau'), \quad (9) \text{ whose tained as } \frac{\delta}{\delta D_{k}}\left\langle U(\beta)\right\rangle_{c}=0 \text{ and } \frac{\delta}{\delta \Pi_{k}}\left\langle U(\beta)\right\rangle_{c}=0. \text{ There are 4 figures. The}$

Theory of the thermoluminescence ...

S/181/61/003/008/023/034 B109/B202

and 2 non-Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet Institut fiziki i

matematiki Mold. fil. AN SSSR (Kishinevskiy State University

Institute of Physics and Mathematics AS USSR)

SUBMITTED:

March 16, 1961

R, Å	Îf (*	a ₁₉	1 61
5 7 10 15 20 30	0.48 0.21 0.062 0.32 · 10 ⁻² 0.37 · 10 ⁻⁴ 0.59 · 10 ⁻⁸	30.6 43.2 57.1 70 73.1	7.53 9.05 8.13 7.2 7.0 6.9

R, Å	Γ, ces1 (Γ = 30° K)	(T = 300° K)
5	2.3 · 1013	2.0 • 1013
7	2.0 · 1010	1.8 - 1012
10	4.3 · 107	0.96 • 1011
15	5 - 104	$0.89 \cdot 10^{9}$
20	49 - 10	$0.78 \cdot 10^{7}$
30	1.0 - 10-3	0.65 - 103

Table 1 Card 6/6

Table 2

Marinchuk, A. Ye., and Moskalenko, V. A.

S/181/63/005/002/051/051

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S/181/63/005/002/051

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S/181/63/002/051

Theory of the thermoluminescence ...

thermoluminescence. For $T\to 0$, (2.32) changes into the formula for the probability of the light emission of an excited center after phonon relaxation. This formula was obtained by S. I. Fekar (ZhETF, 22, 641, 1952). For $T\neq 0$ the spectrum of the emitted radiation is a superposition of the curves for T=0. It is bell-shaped and has a maximum at $r=-\epsilon_{11}/2$. The given formulas are applied to the case of thermoluminescence which occurs in a colored alkali halide crystal during the reaction $F^*\to 2F$. Table 1 gives the quantities $|J_f|^2$, a_{32} and b for KCl as a function of the distance R between the two centers; $a_{21}=44.6$, $p_0=-7$. Table 2 gives the decay rate Γ of the centers as a function of R. Hence, at lower temperature

This formula describes the frequency dependence of the intensity of

decay rate Γ of the centers as a function of R. Hence, at lower temperature thermal ionization is less important. Thus, only the tunnel effect may cause a decoloration of the F' band. With increasing temperature the conditions are changed: According to A. C. Cheban (Opt. 1 spektr., X, 493, 1961) the probability of thermal ionization at $T = 300^{\circ}$ K is already approximately 10^9 sec⁻¹ and is thus of the same order of magnitude as the tunnel effect. There are 1 figure, 2 tables, and 11 references: 9 Soviet

Card 5/6

Theory of the thermoluminescence ...

S/181/61/003/008/023/034 B109/B202

$$r\omega = \Omega - \Omega_{21}$$
 (2.16),
 $a_{32} = \sum_{x} (q_{x3} - q_{x2})^2$ (1.13),

$$A_{f} = \sqrt{\frac{\hbar}{2DL^{3}\omega_{f}}} \int \psi_{s}(\mathbf{r}) V_{f}(\mathbf{r}) e^{i(\theta, \mathbf{r})} \psi_{s}(\mathbf{r}) d\mathbf{r}, \qquad (1.12),$$

D - crystal density, L^3 - crystal volume. If $\varrho(\Omega)$ is the spectral frequency density then

$$\int w(\Omega) \rho(\Omega) d\Omega = \sum_{r > -\frac{Q_n}{n}}^{\infty} w_r \qquad (2.19)$$

follows from (2.14), i.:. the emission spectrum consists of equidistant lines. For w_r the authors give the following expression:

$$w_{r} = \exp\left(-\frac{\alpha_{21}}{2} \operatorname{cth} \frac{\beta}{2}\right) \sum_{k=-\infty}^{\infty} (-1)^{k} I_{k}^{2}(\xi) I_{r+k} \left(\frac{\alpha_{21}}{2 \operatorname{sh} \frac{\beta}{2}}\right) e^{-(r+k)\frac{\beta}{4}}. \quad (2.32)$$

Card 4/6

APPROVED FOR RELEASE: 06/20/2000

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Theory of the thermoluminescence ...

S/181/61/003/008/023/034 B109/B202

$$\varpi(\Omega) = \frac{|W_{rr}(\Omega)|^{2}}{\hbar^{4}\Gamma\omega^{3}} \exp\left(-\frac{a_{53} + a_{21}}{2} \operatorname{cth} \frac{\beta}{2}\right) \sum_{f} |A_{f}|^{2} \tilde{N}_{f}^{0} \int_{-\infty}^{\infty} d\tau \times \\
\times \exp\left[i\tau \left(p_{0} - \frac{\omega_{f}}{\omega}\right) + \frac{a_{32}}{2 \operatorname{sh} \frac{\beta}{2}} \cos\left(\tau - \frac{i\beta}{2}\right)\right] \int_{-\infty}^{\infty} dt \times \\
\times \exp\left[itr + \frac{a_{21}}{2 \operatorname{sh} \frac{\beta}{2}} \cos\left(t - \frac{i\beta}{2}\right)\right] \int_{0}^{\infty} dt' \times \\
\times \exp\left[-\frac{\tau}{\omega} t' - \frac{2ib}{\operatorname{sh} \frac{\beta}{2}} \operatorname{sh} \left(\frac{i\tau + \beta}{2}\right) \sin\frac{t}{2} \cos t'\right],$$

where

$$a_{11} = \sum_{s} (q_{12} - q_{11})^{2}; \qquad b = \sum_{s} (q_{12} - q_{12})(q_{11} - q_{12})$$
 (2.15),

Card 3/6

2**7293** 8/181/61/003/008/023/034 B109/B202 Theory of the thermoluminescence ... the excited electron-vibrational states are considered as virtual states, the theory of Wigner-Weisskopf generalized by Yu. Ye. Perlin (FTT, II, 1915, 1960 and FTT, II, 1928, 1960) can be used; the solution of the time-dependent Schrödinger equation is formulated as superpositions a) of the wave function Y of the initial state which is described by the wave function y, of the metastable level and the occupation numbers $n_{\mathbf{x}}^{\mathbf{o}}$, $N_{\mathbf{f}}^{\mathbf{o}}$, b) of the wave function $\Psi_{\mathbf{v}}$ of the virtual states with the electron wave function Ψ_2 of the unstable level and the occupation numbers n_x , N_f , c) of the wave function Ψ_r of the final states with the electron wave function ψ_1 of the ground state and the occupation numbers n_{x}^{i} , N_{f}^{i} . The corresponding probability amplitudes are co, cy, c whose values can be calculated from the Schrödinger equation. The probability $w(\Omega)$ of the emission of a photon $h\Omega$ can be found by taking the statistical mean value of $|c_{\mathbf{r}}|^2|_{\mathbf{t}\to\infty}$ in terms of the occupation numbers of the photon oscillators in the initial state. Using the results and the denotation of A. Ye. Marinchuk, Yu. Ye. Perlin (Izv. Mold. fil. AN SSSR, 3, (69), 57, 1960) the authors obtain Card 2/6

S/181/61/003/008/023/034 B109/B202

24.3500

Perlin. Yu. Ye., Marinchuk, A. Ye., Kon, L. Z.

TITLE:

AUTHORS:

Theory of the thermoluminescence of impurity crystals

PERIODICAL:

Fizika tverdogo tela, v. 3, no. 8, 1961, 2401-2412

TEXT: The thermoluminescence which occurs upon the radiationless transition of an electron from a metastable level to an excited level of a luminescence center is studied by the perturbation theory of Wigner-Weisskopf. The authors attempted to explain the temperature and frequency dependences of thermoluminescence intensity. As an example, the authors discuss the decoloration of the F' band which is due to a tunnel effect and is accompanied by a luminescence of the F-band. The calculation is made with the aid of an adiabatic model of a localized electron. The lattice spectrum is assumed to consist of two branches: optical vibrations whose interactions with the electron are calculated in zero-th approximation, and acoustic vibrations which interact only weakly with the electrons. This interaction is regarded as perturbation and causes radiationless electron transitions. If thermoluminescence is regarded as a second-order quantum transition and if Card 1/6

24,3500

s/058/62/000/003/049/092 A061/A101

AUTHORS:

Marinchuk, A. Ye., Perlin, Yu. Ye.

TITLE:

Spectral distribution of the thermoluminescence of impurities

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 47, abstract 3V351 ("Izv. Mold. fil. AN SSSR", 1960, no. 3 (69), 71-77, Mold. summary)

A theoretical investigation was conducted on the spectral distribution of thermoluminescence resulting from tunnel-type radiationless electron TEXT: transition from the color center to the excited level of the deep trap situated nearby and of the subsequent luminous radiation. In an approximation, where the frequency dispersion of the optical range of the crystal vibrations is neglected, the emission spectrum consists of equidistant lines. The established spectral dependence fits the equilibrium phosphorescence band of the impurity obtained by Pekar (Pekar, S. I., "Zh. eksperim. i teor. fiz.", 1952, v. 22, 641), which indicates that the shape and position of the maximum of the impurity luminescence band do not depend on the mode of excitation of the luminescence center.

M. Elango

[Abstracter's note: Complete translation]

Card 1/1

Theory of thermoluminescence ...

S/058/62/000/003/048/092 A061/A101

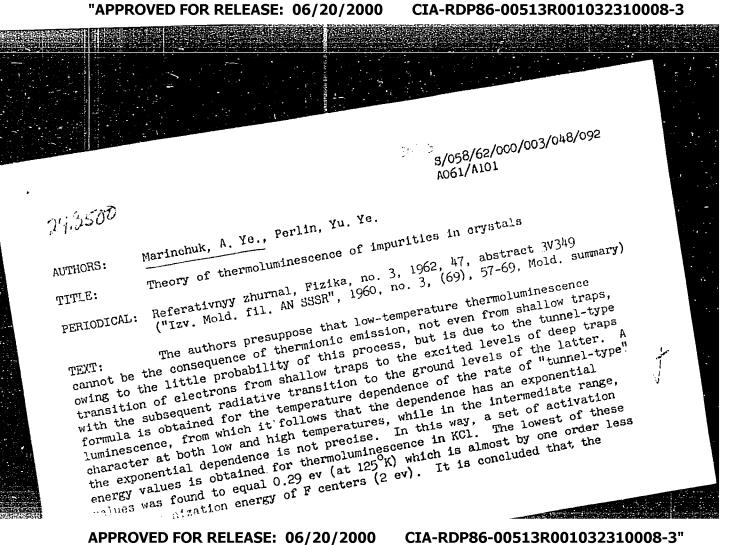
low-temperature thermoluminescence of color centers is not related to their direct thermal ionization, and that the process of tunnel-type luminescence plays a more important role.

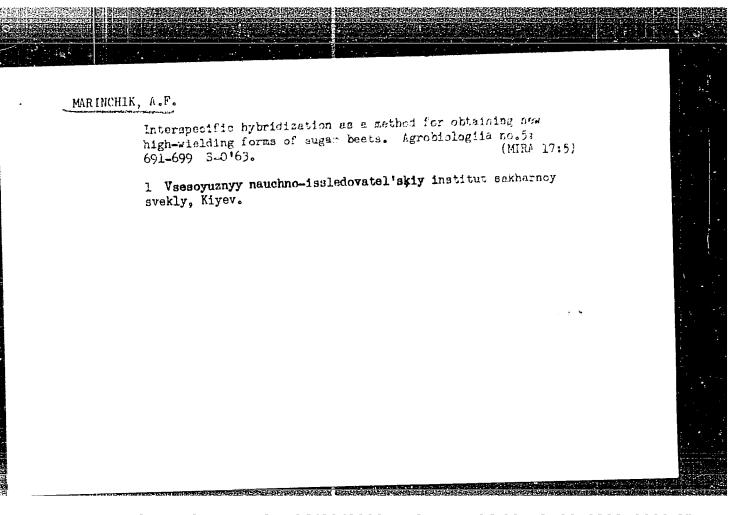
V. Kosikhin

[Abstracter's note: Complete translation]

Card 2/2

CIA-RDP86-00513R001032310008-3





MARINCHIK, A.F.; BUZANOV, I.F.; NOVITSKAYA, Yu.Ye.; Effect of the concentration of the nutrient solution on the water balance, state of pigments and the productivity of sugar beets as related to the climatic conditions. Fiziol. rast. 10 no.6:625-633 N-D '63. (MIRA 17:1) 1. All-Union Scientific Research Sugar Beet Institute, Kiyev.

USSR/Gultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour

: Ref Zhur Biol., No 18, 1958, 82452

Author

: Marinchik, h.F.

I:.st

: AS USSR

Title

: Characteristics of Physiological Processes in Relation to the State of Water in the Leaves and the Prod ctivity

of Sugar Beet Varieties.

Orig Pub

: V sb.: Biol. osnovy oroshayem. zemled. M., AN SSSR,

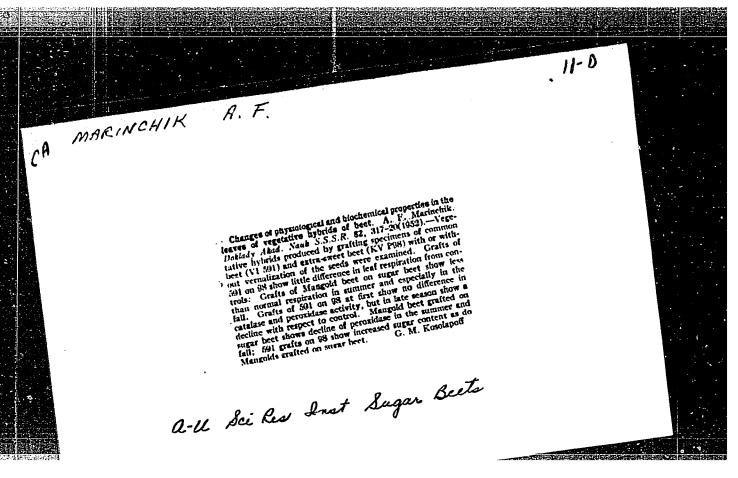
1957, 584-594

Abstract

: For the purpose of a study of physiological characteristics of suchr beet varieties of different tendencies the water conditions (content of free and fixed water), respiration and photosynthesis in POS (with productive tendency) and Yalissh (with saccharine tendency) varieties were studied. The plants were studied in different

Card 1/3

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001032310008-3



MARINCHIK, A. F. 235T3 USSR/Biology, Agriculture - Hybridi-Sep/Oct 52 zation of Sugar Beets "The Behavior of Crops of Hybrid Sugar Beets, Obtained From Components of Varied Ages," A. F. Marinchik, All-Union Sci Res Inst of Sugar Beets, Kiev "Agrobiologiya" No 5, pp 59-66 A summary of expts conducted in various exptl stations of the USSR, with the following deductions: that grafting of the mangold and other type of beets with sprouts of sugar beets of a high productivity and high sugar content produced hybrid crops retaining these properties, and in some cases surpassing them.

HENEBERG, Dorde, sanitetski pukovnik docent dr.; MORELJ, Marjan, generalmajor sanitetske sluzbe profesor dr.; MITIC, Aleksandar, sanitetski
pukovnik dr.; MARINCEVIC, Predrag, sanitetski pukovnik dr.; KOSTIC,
Dobrivoj, sanitetski kapetan I klase dr.; MILOSAVLJEVIC, Tivadin,
sanitetski kapetan dr.; JOKSIMOVIC, Petar, sanitetski porucnik dr.;
MILOSAVLJEVIC, Toma, sanitetski porucnik dr.

Controlled field experiment of chemoprophylaxis against influenza by flumidin in a unit of the Yugoslav People's Army. Vojnosanit. pregl. 22 no.12:754-757 D '65.

l. Vojnomedicinska akademija u Beogradu; Higijenski zavod; Elinika za uho-grlo-nos.

MARINCHEV, V.N.

Hyaluronidase and intraocular pressure. Vest. oft. 70 no.6:23-28
N-D'57.

(MIRA 11:1)

1. Kafedra glaznykh bolezney II Moskovskogo meditainskogo instituta imeni N.I.Pirogova (zav. kafedroy - prof. N.A.Pletneva)

(OHAUCOMA, ther.
hyaluronidase)
(HYALURONIDAZE, ther. ise
glaucoma)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001032310008-3"

MARINCHEV, S. G.

The first N. A. Minkevich prize was given to the following teams:

Candidate of Technical Sciences A. D. Assonov, Engineers N. I. Tereshchin,

V. F. Nikonov, D. I. Kostenko, S. G. Marinchev, I. S. Yurkov, N. N. Inshakova,

N. N. Yanchuk, A. A. Bulatnikov and G. Ye. Litvin (Automobile Works imeni
Likhachev) for their paper "Investigation and Introduction of the Process of

Nitrocementation by Direct Isothermal Hardening in an Alkali Inside Muffleless
Equipment", their design of a muffleless furnace heated by vertical radiation

tubes is of interest.

Results of the 1958 Competition for Obtaining imeni N. K. Chernov and imeni N. A. Minkevich Prizes, Metallovedeniye i termicheskaya obrabotka metallov, 1959, No. 6, pp 62-64

Increasing the Depth of Hardening of Shafts by the Method (cont.) subsequent cooling in air.

T. F.

SOV/137-58-11-22957

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 161 (USSR)

AUTHORS: Arzamasov, B. N., Marinchev, S. G.

TITLE: Increasing the Depth of Hardening of Shafts by the Method of Time-

quenching in Water (Uvelicheniye prokalivayemosti vala metodom

preryvistoy zakalki v vode)

PERIODICAL: V sb.: Term. obrabotka i prochnost¹ metallov i splavov. Moscow,

Mashgiz, 1958, pp 19-27

ABSTRACT: So as to strengthen the core of the transmission main shaft of the

ZIL-150 automobile which is made of 40Kh-grade steel, the process of its cooling was investigated and cooling curves were drawn for four methods of cooling: 1) In water, 2) in water for 50 sec, then in air, 3) in water for 30 sec, then in air, and 4) in oil. The optimum procedure was worked out on the basis of the superposition of the curves obtained over the thermokinetic diagram of 40Kh-grade steel. Experimental verification carried out on 9 shafts corroborated the data obtained in the investigation. The following procedure for the

quenching of shafts in water is recommended: Heating to 850°C, soak

Card 1/2 ing for 1 hour, quenching in 15-30° water for 40 to 50 sec, and

Heat Treatment and Strength of Metals and Alloys (Cont.) 650

(in the case of fine-grained steel), embrittlement with subsequent aging will be less, and conversely.

- Arzamasov, B.N., Candidate of Technical Sciences; Marinchev, S.G., Engineer. Increasing the Hardenability of a Shaft by Interrupted Quenching in Water 19
- Author's conclusions: 1. For purposes of analyzing the cooling process in quenching, it is possible to use the method of superimposing the cooling curves on the thermokinetic diagram. 2. The hardenability of a 40Kh-steel main shaft for the transmission of the ZIL-150 automobile can be increased by interrupted quenching in water, thus rendering oil quenching unnecessary. 3. The suggested method of quenching permits full automation of the heat-treating process. (There are 2 references, both Soviet.)
- Samoshin, I.G., Candidate of Technical Sciences, Docent. Automatic Unit for Heat Treating Sewing Machine Needles

The author describes the unit, which was designed and built at the Moscow Higher Technical School imeni Bauman. The unit, consisting of thirteen segarate sections, carries out the operations of hardening, washing, and tempering. In addition to needles, it can also handle other cylindrical objects of small diameter, such as watch axles, rollers for small bearings, etc.

Card 4/12

Heat Treatment and Strength of Metals and Alloys (Cont.) 650

tling effect of the enumerated treatments (except strain aging) on the properties of superheated coarse-grained steel is relatively less than on fine-grained steel. The same reduction in the area (10 percent) in the given case causes a smaller decrease in the energy required to cause failure in the pasty state (from 19 to 15 kg-m). Quenching at 700° does not decrease, but actually somewhat increases, the energy required for failure in the transformation range. Subsequent quench aging also decreases the toughness to a lesser extent. At room temperature the energy absorbed in fracturing the coarse-grained steel decreased after aging from 19.4 to 17.9 kg-m, or by 8 percent. The fine-grained specimens did not fracture before aging, but after aging their fracture was accomplished with 25.5 kg-m of energy, i.e., the decrease in toughness was large. However, shifting of the upper threshold of cold shortness, as caused by the above types of treatment, was the same with coarse- and fine-grained steel. 3. As regards strain aging, however, the decrease in plasticity and toughness is greater in the case of coarse-grained steel. At 20°C. strain aging does not reduce the energy absorbed in fracturing fine-grained steel (about 19 kg-m), but the energy to fracture the large-grained steel drops from 19.7 to 14.7 kg-m. The shift in the threshold of cold-shortness is the same in both cases. The effect of strain aging is apparently linked with the effect of cold hardening. If the same degree of cold hardening causes a bigger drop in toughness and plasticity

Card 3/12

Heat Treatment and Strength of Metals and Alloys (Cont.) 650

er Technical Institute imeni Bauman), the Vsesoyuznyy zaochnyy politekhnicheskiy institut (All-Union Correspondence Polytechnic Institute), The L'vovskiy politekhnicheskiy institut (L'vov Polytechnic Institute), and the Staling adskiy mekhanicheskiy institut (Stalingrad Mechanical Institute). For references and further coverage, see Table of Contents.

TABLE OF CONTENTS:

Pogodina-Alekseyeva, K.M., Candidate of Technical Sciences, Docent; Krotkova, Ye.Ye., Candidate of Technical Sciences. Effect of Actual Grain Size on the Aging of MSt.3 Structural Steel

Author's conclusions: 1. In MSt.3 steel with a coarse grain, obtained by superheating (normalization at 1350°C. for 7 minutes) the upper threshold of cold shortness is 80° higher than in steel normalized at 920°. The energy absorbed in the fracturing of the superheated steel in the pasty state was as low as 19 kilogram-meters, while in the case of specimens normalized at 920° it exceeded 30 kg-m. The sharp difference in the properties of superheated and normalized steel is preserved even after subsequent treatment, such as cold hardening with a reduction of 10 percent. Quenching at 700°, strain aging, and quench aging, although these treatments produce effects in varying degree.

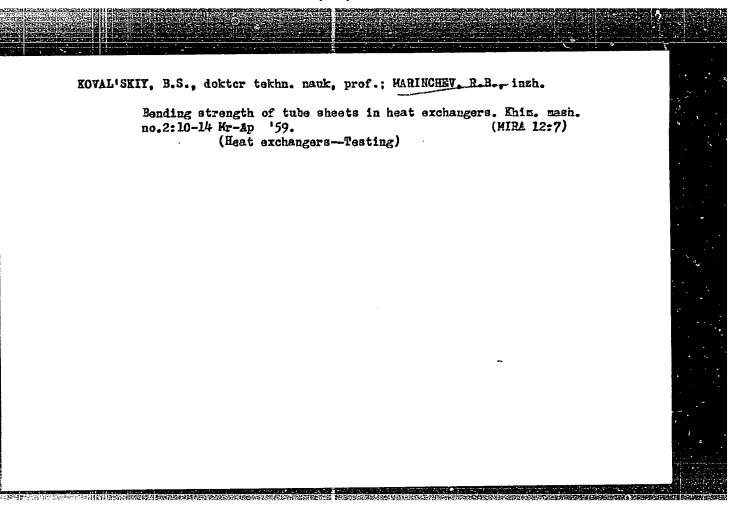
Card 2/12

MARINCHEV, S.G.

PHASE I BOOK EXPLOITATION 650

- Moscow. Moskovskoye vyssheye tekhnicheskoye uchilishche. Kafedra "Termicheskaya obrabotka metallov"
- Termicheskaya obrabotka i prochnost' metallov i splavov; sbornik statey (Heat Treatment and Strength of Metals and Alloys; Collection of Articles) Moscow, Mashgiz, 1958. 177 p. 5,500 copies printed.
- Ed. (title page): Pogodin-Alekseyev, G.I., Doctor of Technical Sciences, Professor; Ed. (inside book): Yegorkina, L.I.; Tech. Ed.: Tikhanov, A.Ya.
- PURPOSE: This book is intended for engineers and technicians in the machine-building industry, scientific workers at research institutes and industrial laboratories, and for students taking advanced courses at higher technical institutes.
- COVERAGE: This collection of articles is devoted to problems of mechanization and automation of heat-treating processes and to investigations of the mechanical properties of metals and alloys as affected by their composition and by heat-treatment conditions. The experimental work was done by researchers at the Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana (Moscow High-

Card 1/12



UNGER, Yu. [Ungher, J.]; MARINKESKU, K. [Marinchescu, C.]; SEVASTOPOL', N.; MIKHEIIESKU, L. [Mihailescu, L.]

Dynamic studies on verbo-vertal connections and on vegetative components in the association experiment. Zhur. vys. nerv. deiat. 12 no.4:578-586 J1-Ag 162.

(MIRA 17:11)

l. Institut nevrologii imeni Pavlova AN Rumynskoy Narodnoy Respubliki, Bukharest.

POYLICHI, I.[Poilici, I.]; MARINKESKU, K.[Marinchescu, C.]; MARCOVICH, G.[Marcovici, G.]

Dynamics of vascular and respiratory disorders in the acute stage of cerebral blood circulatory disorder. Nauch. trudy Inst. nevr. AMN SSSR no.1:284-293 *60. (MIRA 15:7)

1. Institut nevrologii imeni Pavlova Akademii Rumynskoy Narodnoy Respubliki, Bukharest.

(CEREBROVASCULAR DISEASE) (RESPIRATION)

SARAGEA, M.; BAIBIS, A.; IONESCU, C.; MARINCHESCU, C.

l. Catedra de fiziopatologie a Institutului medicofarmaceutic din Bucuresti.

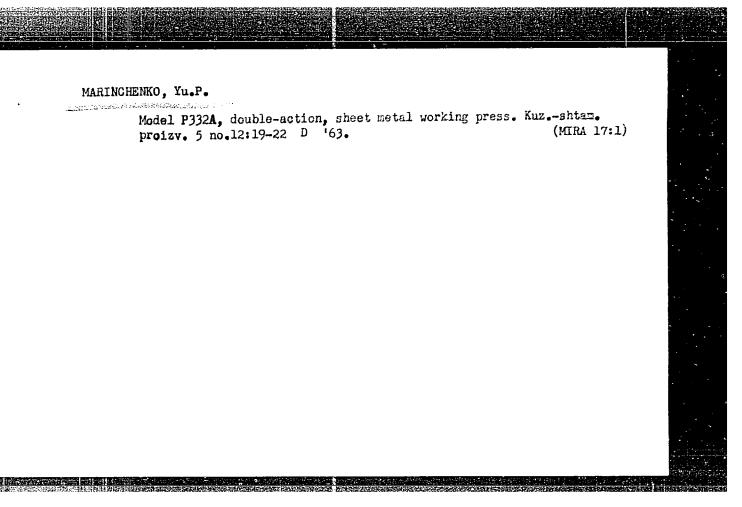
(VISCERA) (NEUROSES) (RESPIRATION) (SALIVARY GLANDS)

Additions to the study of the mechanisms of localizing visceral disturbances in the course of nauroses. Note 1: Particularities of visceral disturbances of animals with double stereotypy [salivatory and mspiratory] in the course of a neurosis provoked by overstraining the digestive projection of the visceral analyser.

Studii cerc.fiziol. 4 no.3:301-311 159. (EEAI 9:5)

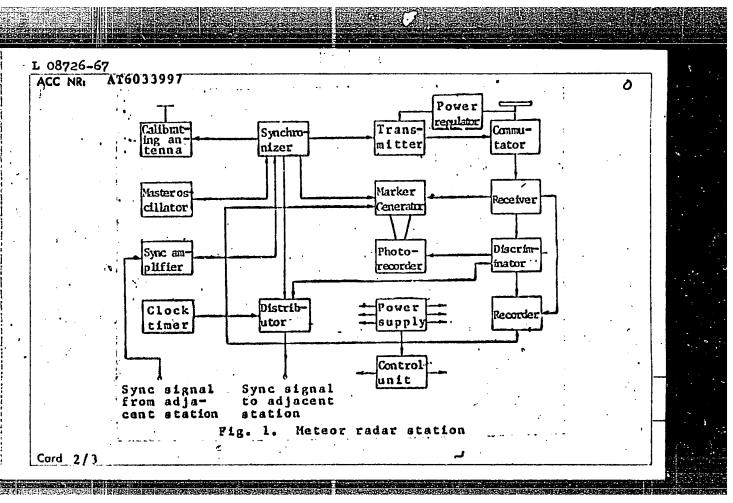
(VISCERA) (NEUROSES) (SALIVARY GLANDS) (RESPIRATORY ORGANS)

(DIGESTION)



L 08726-67	
ACC NR: AT6033997	
following optimal parameters: $\lambda = 4.2$ m; transmitted pulse power, 100 kw; pulse width, 3 µsec; and pulse repetition rate, 300 pulses/sec in packets of 3 pulses. The antennas used were a narrow-beam wave channel type and a wide-beam folded dipole (see Fig. 1). Meteor echo data from this type of station, compared to those of a station	
operating at 10 m, showed the same qualitative response in terms of daily and seasonal echo frequency. Orig. art. has: 1 formula, 1 table	
and 2 figures.	
SUB CODE:/7,03/ SUBM DATE: none/ ORIG REF: 003/	
	2
Card 3/3 nst	

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001032310008-3



L 08726-67 FSS-2/EWT(1) GW/WR ACC NR: AT6033997 SOURCE CODE: UR/3227/64/003/000/0098/0103

AUTHOR: Peregudov, F. I.; Marinenko, V. A.; Yanyushkin, V. L.

ORG: none

TITLE: Automatic radar station for registering meteor activity

SOURCE: Tomsk, Institut radioelektroniki i elektronnoy tekhniki.

Trudy, v. 3, 1964, 98-103

TOPIC TAGS: radar meteor observation, radar station, meteorologic radar

ABSTRACT: The authors discuss some elements of the nationwide meteor-

ABSTRACT: The authors discuss some elements of the nationwide meteor-watch network which was to have been set up in the USSR to contribute to IGY-IQSY activities. This synchronized network of radar stations was to have operated-semiautomatically, in that a detected meteor echo at one location would generate an actuating signal for adjacent stations. Experience with earlier radar meteor probes indicated a need for optimizing radar parameters for best statistical results; for example, wavelengths should be 4—6 m, and pulse repetition rates should not exceed 300/sec. The M-3 type station, developed at the Tomak Polytechnical Institute to replace the less sensitive P-2M stations, has the

Card 1/3

MARINCHENKO, Vladimir Alekseyevich; SUD, I.I., red.; GOLYATKINA, A.G., red. izd-va; KARASEV, A.I., tekhn. red.

[Efficient use of electric power in rolling mills]Voprosy ratsional'nogo ispol'zovaniia elektroenergii v prokatnykh tsekha.h. Moskva, Metallurgizdat, 1962. 134 p. (MIRA 16:2) (Rolling mills) (Electric power)

SOV/112-57-9-18931

Improving Electrical and Thermal Conditions in Electric-Arc Steel-Melting . . .

briefly. Cooling-water losses at the Dneprospetsstal' Plant have been considerably reduced by assigning quantities of water for cooling various furnace parts, which kept the outflow temperature not lower than 45-50 C.

V.I.L.

Card 3/3

SOV/112-57-9-18931

Improving Electrical and Thermal Conditions in Electric-Arc Steel-Melting serve for selection of the optimum electrical conditions of the furnace during melting. To select electrical conditions for oxidation and reduction periods, the electrical characteristics of the furnace on the corresponding transformer voltage taps should be used; working currents should be derived from them. Furnace productivity is determined by the electric-arc power; the maximum value of the latter will take place if the electric resistance of the arc is equal to the additional impedance of the furnace circuit. Arc power could be increased by stepping-up the voltage on the furnace transformer secondary, and also by reducing the inductance and resistance of the furnace circuit. At the Dneprospetsstal' Plant, the following steps have been taken to improve the melting-period conditions: (1) stepping-up and stabilizing the secondary voltage of furnace transformers; (2) reducing the inductance of the furnace circuit; (3) improving the automatic control of electrical conditions; (4) checking the implementation of the assigned conditions. Each of the above steps is examined in the paper and the typical working conditions of the furnace are described

Card 2/3

SOV/112-57-9-18931

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 9, p 134 (USSR)

AUTHOR: Marinchenko, V. A.

TITLE: Improving Electrical and Thermal Conditions in Electric-Arc Steel-Melting Furnaces (Usovershenstvovaniye elektricheskogo i teplovogo rezhimov dugovykh elektrostaleplavil'nykh pechey)

PERIODICAL: Tr. nauch.-tekhn. o-va chernoy metallurgii, 1956, Vol 9, pp 411-419

ABSTRACT: For each melting period, an individual set of electrical conditions should be selected. During charge melting, the maximum amount of heat should be supplied to the furnace, while much less heat is required during oxidation and reduction periods. Charge melting requires the maximum power in the arcs. In selecting the working current, not only should electrical characteristics be taken into consideration, but heat losses should also be allowed for which have a great influence on the furnace performance.

Operating diagrams of a 40-t electric arc furnace are presented which can

Card 1/3

MARTINCHENKO, VLADIMIR ALEKSEYEVICH

N/5 740.163 .M3

ELEKTROOBCRUDOVANIYE DUGOVYKH PECHEY TREKHFAZNOGO TOKA (ELECTRICAL EQUIPMENT OF TRIPHASE ARC FURNACES) MOSKVA, METALLURGIZDAT, 1955.

468 P. DIAGRS.

LITERATURA: P. 467-468.

DOMARETSKIY, V.A.; MARINCHENKO, V.A.

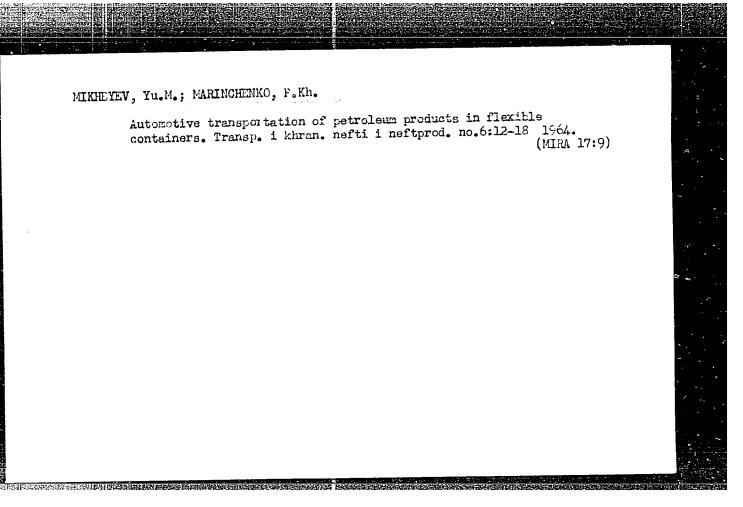
More accurate calculation of the number of the theoretical plates in exhaust columns in case of the feeding of an underheated charge. Izv.vys.ucheb.zav.; pishch.tekh. no.5:120-123 '63. (MIRA 16:12)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra protsessov i apparatov pishchevykh proizvodstv.

BOBROVSKIY, S.A.; MARINCHENKO, P.Kh.

Characteristics of the transportation of fuel by air. Transp. i khran. nefti i nefteprod. no.7:13-16 *65. (MIRA 18:9)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika Gubkina.



ROZHKOV, Igor' Vladimirovich; MARINCHENKO, Petr Kharitonovich; YEGOROV, Mikhail Georglyevich; CHURSHUKOV, Yevgeniy Sergeyevich; KOSOROYOV, B. V., Inzh.-polkovnik zapasa, red.; SOKOLOVA, G.F., tekhn. red.

[Protection from corrosion and the cleaning of tanks and containers in fuel storehouses] Zashchita ot korrozii i zachistka rezervuarov i tary na skladakh i bazakh goriuchego. Moskva, Voenizdat, 1963. 117 p. (MIRA 16:6)

(Petroleum producta--Storage)

(Corrosion and anticorrosives)

Changes in the quality ...

S/065/63/000/002/003/008 E194/E484

containing 210 mg/100 ml resins and in 100 hour test the engine power output fell by 4.5%, the fuel consumption rose by 4% and the inlet valve stems, the valves and pistons were heavily lacquered. There are 4 figures.

Card 3/3

Changes in the quality ...

S/065/63/000/002/003/008 E194/E484

(petrolatum, stearine, rosin etc), anti-freeze (dibutylphthalate, dibutylsebacinate, complex esters etc) and anti-oxidants. substances are only partly extracted from the rubber and one effect is to increase the elasticity of the rubber and its resistance to frost; these properties, however, revert when the rubber is left out of contact with oil for a period. content of the oil product rises most rapidly in the first 20 to 50 hours, the more so as the temperature is raised, and then usually steadies; the highest figure after 120 hours was aviation gasoline grade 5-70 (B-70) at 40°C, which contains about 3000 mg/100 ml resin and the lowest was fuel [-1 (Ts-1) at 20°C, which contains about 600 mg/100 ml. It follows that if fuel is left in a hose for periods up to 5 hours it may become unsuitable for use and where rubber hoses up to 1.5 km long are used the first amounts of fuel pumped through the hose may contain excessive amounts of resin. After prolonged storage, the resin content is reduced by precipitation as sludge but this may take up to 10 days and in practice permissible values are best achieved by Gasoline engine bench tests were made on fuel Card 2/3

S/065/63/000/002/003/008 E194/E484

AUTHORS:

Marinchenko, P.Kh., Chernikov, P.F.

TITLE:

Changes in the quality of oil products during contact

with rubber products

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.2, 1962, 43-45

The effect of exposure to rubber on the quality of fuels TEXT: and lubricants was studied because such exposure often occurs in Samples of rubber hose 160 mm long with aluminum stoppers at each end were placed in a metal container filled with oil and placed in a thermostat at temperatures up to 40°C, for periods up to 120 hours. The fuel property found to change most on this treatment was the true resin content determined by the method of standard | TOCT (GOST) 1567-56 and this property was, therefore, used as a criterion. The resistance of various rubbers to oil and fuel was also assessed by placing strips of them in the fuel or lubricant in a container in a thermostat and again the change in resin content was used as a criterion. normal petroleum resins, those which form in oil products on exposure to vulcanized rubber consist of a mixture of softeners Card 1/3

MARINCHENKO, P., inzhener-polkovnik; VIGANT, V., inzhener-podpolkovnik; YEGOROV, M., podpolkovnik tekhnicheskoy sluzyby; KOCHKIN, P., inzhener-mayor

Mechanizing the cleaning of reservoirs and oil tankers. Tylisnab. Sov. Voor. Sil ?l no.9:92-94 S '61. (MIRA 14:12)

(Tank vessels-Cleaning)

L 46745-66

ACC NR: AP6032057

calcium, mangamese, aluminum, and sodium compounds and organic salts thereof; sulfates; sulfuric acid; water-soluble and insoluble mono- and bi-nuclear aromatic hydroxy acids, bi- and tri-nuclear aromatic acids; and neutral high-molecular-weight gums which are products of the further polymerization of neutral resins found in the fuel and formed by the polymerization of olefinic-aromatic alcohols. On prolonged storage, sediment formation occurs mostly on account of iron corrosion products of mineral contaminants containing silicon, calcium, magnesium, aluminum, and sodium compounds, and of sulfates. The part played by organic gum-type products is small. On heating to 150C, sediment formation occurs mostly due to organic products. part played by sulfuric acid, sulfates, and copper corrosion products increases. share of iron corrosion products and mineral contaminants decreases. To prevent sediment formation on storage, it is recommended that storage tanks be provided! with anticorrosion coatings [unspecified] and equipped with air filters to prevent contamination from the outside air. To decrease sediment formation at elevated temperature, jet fuel thermal stability should be improved by better removal of unstable and resinous products at the refinery or by the use of the highly effective additives [unspecified; no reference given] recently developed for this purpose. [Microbiological contamination is not discussed]. [BM]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 010/ ATD PRESS: 5088

Card: 2/2

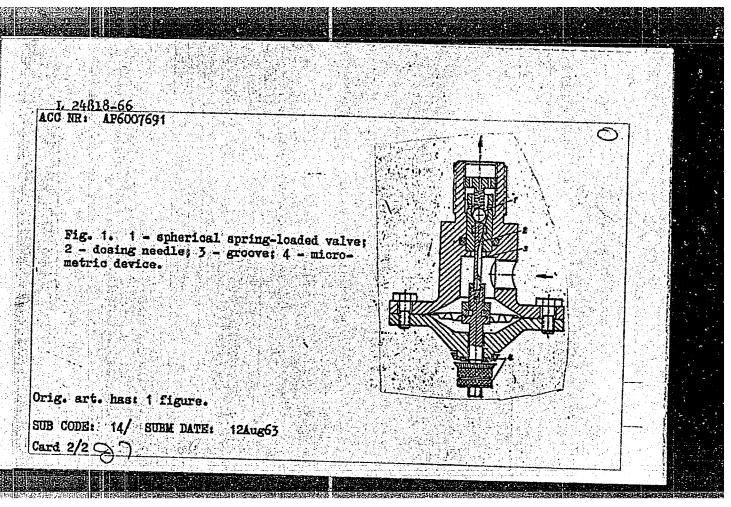
46745-66 EWT(m)/T ACC NR: AP6032057 SOURCE CODE: UR/0318/66/000/009/0013/0017 Zrelov, V. ii.; Marinchenko, N. I. ORG: none TITLE: Formation of sediments in jet fuels SOURCE: Neftepererabotka i neftekhimiya, no. 9, 1966, 13-17 TOPIC TAGS: jet fuel, fuel storability, fuel thermal stability, fuel contamination, fuel deposit formation, fuel sediment formation/TS-1 jet fuel, T-1 jet fuel ABSTRACT: A study has been made of the composition of sediments formed in TS-1 and T-1"jet fuels 1) on prolonged storage and 2) on heating to 150C. It is noted that

sediments cause premature clogging of fuel filters, deposits in oil—fuel heat exchangers, and accelerated wear of fuel systems | and that sediments contribute to the build-up of static electricity on fuel transfer. The sediments, whose elemental composition is given in the original article, were separated into seven components: water-soluble organic compounds, acid inorganic compounds, acid organic compounds, ethyl ether-soluble neutral organic compounds, methanol-soluble neutral organic compounds, sulfates, and solid residue. The percentage and chemical composition of these components were determined and are given in tabular form in the original article. It was found that the following products take part in sediment formation both on storage and at elevated temperatures: solids consisting of iron, silicon,

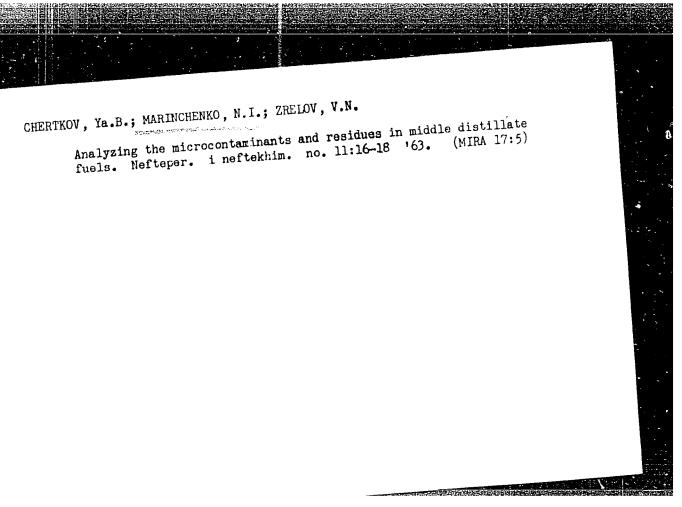
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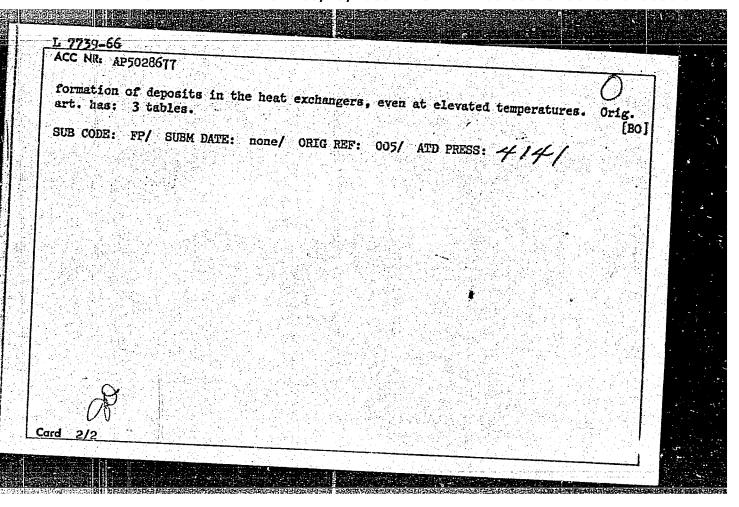
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1 261L0-66 EAT (w) AT . TY AE ACC NR AP6015116 SOURCE CODE: (4) UR/0065/66/000/005/0057/0061 AUTHOR: Zrelov, V. N.; Marinchenko, H. I. ORG: none 404 TITLE: Effect of jet-fuel oxidation products on the formation of minute contem-SOURCE: Khimiya i tekhnologiya topliv 1 masel, no. 5, 1966, 57-61 TOPIC TAGS: jet fuel, fuel contamination/F 1 jet fuel, TS 1 jet fuel ABSTRACT: A study has been made of the effect of the oxidation products of jet fuels on the formation in the fuels of minute contaminants. WIt is noted that filtration on the formation in the fuels or minute contaminants. What the development of more alone cannot always cope with minute contaminants and that the development of more than the fuels of more than the fuels of more alone cannot always cope with minute contaminants and that the development of more effective methods of contaminant control demands their thorough study. From T-1 and TS-1\(\text{Met fuels oxidation products were isolated and separated by such methods as chromatography, distillation, and solvent extraction into primary oxidation products of low-stability hydrocarbons, neutral and acid resins, and hydroxy acids. From contaminants of the jet fuels, gums were isolated by solvent extraction. It was found that out of the oxidation products, four groups of compounds played a part in contaminant formation: 1) oxidation products of sulfur- and nitrogen-containing organic compounds; 2) hydroxy acids; 3) acid resins; and 4) neutral resins. The major role was played by oxidection products of sulfur- and nitrogen-containing organic compounds which underwent extensive polymerization on the surface of con-Card 1/2 665.521.3



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21.218_66 HWLVL	SOURCE CODE		
ICC NR: AP6007691 (A)		4	3
AUTHORS: Marinohenko, V. S.: Nakhimo	JV88.17)		
AUTHORIO .			
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ORG: none TITLE: Device for dispensing a gas [announced by Riga Instrument Manufa	into vacuum on	Rizhskiy priborostroiter my	
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	[기술: 경기로 제출[기술] 공항: [기술: 기술: 기술: 기술	vos: 66.028:5	3.59
빛 [2] - 보는 '생각하다면 말라면 다녀를 모르겠다는 항기를 받았다.			





I. 7739-66 EWT(ACC NR. AP5028677 EWT(d)/EPA/EWT(m)/EPF(c)/EWP(f)/T/EWA(c) SOURCE CODE: UR/0318/65/000/011/0007/0010 AUTHOR: Zrelov, V. N.; Marinchenko, N. ORG: none TITLE: Formation of deposits in fuel-oil heat exchangers of jet engines SOURCE: Neftepererabotka i neftekhimiya, no. 11, 1965, 7-10 TOPIC TAGS: jet fuel, fuel deposit formation, heat exchanger ABSTRACT: A study has been made of deposits formed in the fuel lines of jet fuel-oil heat exchangers. The experiments were conducted with deposits formed from standard TS-1 fuel , TS-1 fuel containing 0.045% mercaptan sulfur, and T-2 fuel containing 30% thermal cracking components after 10, over 200, and over 400 hr of service. The soluble gums in the deposits were extracted first with chloroform and then with an alcohol-benzene mixture. The insoluble portion of the deposits was removed mechanically. Microanalysis showed that the chloroform-soluble gums are mainly oxidation products of unstable hydrocarbons, while the alcohol-benzene-soluble gums are oxidation products of organosulfur and organomitrogen compounds. The insoluble deposits were corrosion products of copper (sulfates, oxide). Increasing the service time, temperature, and cracking component concentration or mercaptan sulfur content in the fuel was shown to increase the amount of deposits formed. Traces of iron or zinc corrosion products or of mineral impurities in the fuels played little part in the Card 1/2 UDC: _62-714:66.065

ACCESSION NR: AP4009786

in the combustion chamber within the scaling zone did not exceed 250-400C; gas temperatures in front of the turbine were 500-720C. It was concluded that scaling in turbojet combustion chambers is formed in zones having inadequate temperature (250-400C) and too low oxygen concentration for adequate combustion. The scale was found to consist of multistage, consecutive, deep-destruction products of the organic molecule with considerable enrichment of carbon in the final product. The material carbonized because the deposit contained considerable quantities of sulfur,-oxygen- and nitrogen compounds. The deposit also consisted of oxidizable hydrocarbons and nonhydrocarbon organic compounds with sulfur, oxygen and nitrogen contents. At temperatures of 200-400C in an oxygen environment, oxidizing processes transform nonhydrocarbon compounds into resins and ultimately into scale. Orig. art. has no figures, no formulas, 6 tables.

ASSOCIATION: None

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DATE ACQ: 10Feb64 NO REF SOV: 006

ENOL: CO OTHER: COL

Card 2/2

APPROVED FOR RELEASE: 06/20/2000

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ACCESSION NR: AP4009786

S/0065/64/000/001/0051/0055

AUTHORS: Marinchenko, N.I.; Chertkov, Ya. B.: Pishunov, V.A.

TITLE: Scale formation in turbojet engines

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1964, 51-55

TOPIC TAGS: jet chamber, scaling

ABSTRACT: Scale formation in jet engines was studied and the particular purpose of the present work is a study of some of these problems. Deposits were investigated which accumulated on the injection fuel nozzle and on the whirler of engine I after 100 hours operation on fuel TS-1; on the injection nozzle and walls of the heat pipe of the combustion chamber in engine II after 200 hours operation on fuel T-2; and on the heat pipe of the combustion chamber of engine III after 300 hours operation on fuel T-1. The engines were operated within their warranty period under same conditions as in airplanes. Temperature of fuel nozzles and whirlers in working operations reached 250-3400 while the wall temperature

Card 1/2

ZRELOV, V.N.; MARINCHENKO, N.I.; SHCHAGIN, V.M.; RYBAKOV, K.V.

Chemical composition of trace contaminants in jet fuels made from sulfur-bearing crude oils. Khim.i tekh.topl.i masel 8 no.11: 57-61 N '63. (MIRA 16:12)

ZRELOV, V.N.; SHCHAGIN, V.M.; MARINCHENKO, N.I.; RYBAKOV, K.V.

Composition of microcontaminations in T-1 fuel from Azerbaijan pertroleums. Nefteper. i neftekhim. n. 10:d-11 '63. (MIRA 17:2)

CHERTKOV, Ya.B.; RYBAKOV, K.V.; ZRELOV, V.N.; MARINCHENKO, N.I.; INOZEMTSEVA, M.N.

Formation of trace impurities in middle-distillate fuels. Zhur. prikl. khim. 36 no.8:1825-1833 Ag '63. (MIRA 16:11)

S/081/62/000/006/076/117 B167/B101

The ash of deposits appearing in ...

catalytic effect of metal. The deposits consist of the products of extensive oxidation of the organic compounds of fuel and of metal corrosion products. The ash contains great amounts of Fe, Zn, Si, and Na at low temperatures. Cd undergoes low-temperature corrosion. At higher temperatures, metal corrosion is intensified, and Cu, Al, and Pb undergo corrosion. The portion of organic material is highest at the temperature of maximum formation of deposit. At both higher and lower temperatures, ash-forming elements account for the major part of the deposit. Fuel containing a cracking component undergoes intensive oxidation, catalyzed by brass, with formation of resin-like compounds. [Abstracter's note: Complete translation.]

Card 2/2

36543

5/081/62/000/006/076/117 B167/B101

Chertkov, Ya. B., Zrelov, V. N., Marinchenko, N. I.

TITLE:

The ash of deposits appearing in sulfur-containing fuels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 537, abstract 6M225 (Sb. "Khimiya seraorgan. soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh. v 4. M., Gostoptekhizdat, 1961, 222-230)

TEXT: A study of the composition of residues obtained by oxidizing fuel of type T (T) for 6 hours under laboratory conditions (at 120 and 150°C, in the presence or in the absence of bronze), and also of the residues from the filters of actual engine assemblies at various temperatures. Elementary analyses were carried out as follows: metals by semiquantitative emission spectroscopy on an MUT-28 (ISP-28) apparatus for 28 elements, alkali metals on an CT-7 (ST-7) stylometer, and copper colorimetrically. It is shown that organo-sulfur compounds (and mercaptans in particular) are the principal source of residues. The amount of deposit increases rapidly with temperature and with the Card 1/2

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The Composition of Deposits For Transport Jet Aircraft	S/065/61/00 E194/E284 rmed on The Fuel	00/004/009/011 Filters of Table 1	
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Card 5/5		0,1-1,0	

89597

\$/065/61/000/004/009/011 E194/E284

The Composition of Deposits Formed on the Fuel Filters of Transport Jet Aircraft

There are 1 table and 3 references: greater than 1-2 microns. 2 Soviet and 1 non-Soviet.

Table 1

45

Состав абсолютно сухих отложений, образующихся на 40-мивронных фильтрах, при работе на топливе ТС-1 (% вес.)

	ией deliverу Гопливоза-	Топливная система остана			
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Углерод . Н	8,36 2,43 0,37 0,63 48,18 42,03	21,55 3,48 0,61 0,54 44,07 29,75	10,07 1,80 0,47 1,70 56,42 29,54	19,16 2,44 0,64 0,64 47.27 29,35	12,97 2,02 0,47 0,85 57,02 26,67

Card 4/5

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001032310008-3"

89597

S/065/61/000/004/009/011 E194/E284

The Composition of Deposits Formed on the Fuel Filters of Transport Jet Aircraft

particularly oxygen in the deposits formed on the filters indicates that the source of formation of the organic part of the deposit is mainly the non-hydrocarbon part of the fuel. Corrosion of non-ferrous and ferrous metals is also largely due to the presence in the fuel of non hydro-carbon components. The better that non-stable hydrocarbon and non-hydrocarbon components are removed from the fuel the less will be the tendency to form resinous deposits and the less will be the filter blocking. elements act as centres of coagulation of viscous organic compounds and by more complete removal from the fuel of corrosion products, contaminants and other ash containing parts it will be possible to limit or prevent the increase in the particle size of oxidation products which lead to filter blocking. Accordingly, it is now considered essential to store fuel in tanks with anticorrosion linings which are completely hermetically sealed and to filter the fuel delivered to transport aircraft with complete removal from the fuel of mechanical admixtures with particle size Card 3/5

89597

S/065/61/000/004/009/011 E194/E284

The Composition of Deposits Formed on the Fuel Filters of Transport Jet Aircraft

the aircraft did not exceed 45-50°C and in the fuel in the vehicle it was at ambient temperature. The deposits were removed from the metal filters by ultrasonic means in distilled water. After evaporation of the water the deposits were washed with isopentane to remove the fuel and dried to constant weight at 105°C. The composition of the dry residues is given in Table 1. It will be seen that the deposits in the aircraft filters have a very high ash content. The deposits on the filters of the fuelling vehicles consist mainly of iron and zinc, mainly in the form of oxides. The ash deposits on the aircraft filters contain much less iron that in the fuelling vehicle but much more copper, tin, cadmium, sodium, calcium and magnesium. Evidently the ash component on the aircraft filters consists of corrosion products of metals in the aircraft fuel system and engine, in the first place copper and cadmium compounds and tin alloys. The organic part of the deposit does not exceed 20-30%. In the fuelling vehicle the organic deposits are very low. The high content of sulphur, nitrogen and Card 2/5

ロソフソト

\$/065/61/000/004/009/011

E194/E284

26.1120 AUTHORS: Chertkov, Ya. B., Ragozin, N. A. and Marinchenko,

N. I.

TITLE: The Composition of Deposits Formed on the Fuel

Filters of Transport Jet Aircraft

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 4,

pp. 57-60

TEXT: Jet fuel filters are required to retain particles of 1-2 microns and completely to prevent the presence in the fuel of particles of 5 microns or more. As the fuel is filtered immediately before delivery to the aircraft the engine might be expected to operate for the full-service time without filterblocking. However, in fact, filter blocking does occur, partly as a result of non-organic contamination and partly by high molecular weight non-hydrocarbon organic compounds. A study was accordingly made of the composition of deposits trapped by 40 micron filters on transport jet aircraft after 100 hours operation on standard fuel grade TC-I (TS-1) to standard FOCT 7149-54(GOST 7149-54). A study was also made of the composition of deposits formed on the filters of fuel delivery vehicles. The temperature of the fuel in Card 1/5

SOV / 65-58-7-10/12

The Corrosive Activity of Hydrocarbon Fuels in the Presence of Elementary Sulphur.

Fig.1: A graph giving curves of the oxidation of white spirit. When white spirit was oxidised in the presence of elementary sulphur (concentration = 0.001 - 0.01%), when not in contact with bronze, it was seen that elementary sulphur acted in all cases as a strong anti-cxidant; the induction period = 300 minutes. During these oxidations it was found that the polished surface of the bronze showeddefinite catalytic activity. When the bronze surface was covered with a layer of cupric oxide or cuprous sulphide no catalytic activity could be observed. When elementary sulphur is contained in the fuels in quantities of 0.002 - 0.003% and higher, considerable corrosion occurs and precipitates are formed which penetrate into the fuel and cause accumulation of hard deposits. There are 4 Figures and 7 References: 4 English and 3 Soviet.

1. Fuels--Corrosive effects 2. Sulfur--Properties

Card 2/2

SOV/65-58-7-10/12

Chertkov, Ya. B; Zrelov, V. N; Shchagin, V. M. and AUTHORS:

Marinchenko, N. I.

The Corrosive Activity of Hydrocarbon Fuels in the TITLE:

Presence of Elementary Sulphur. (Korroziynaya akti-vnost' uglevodorodnykh topliv v prisutstvii element-

arnoy sery).

Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.7. PERIODICAL:

pp. 62 - 66. (USSR).

By using radioactive indicators, the authors found that ABSTRACT:

the formation of a layer on metal is not due to adsorption, but to chemical interaction the elementary sulphur penetrates into the metal. Investigations on the changes of the metals in fuel mixtures under the influence of elementary sulphur and oxygen were carried out to define the character of occurring processes. Bronze was used as the investigated metal, and white spirit

as the hydrocarbon mixture. The absorption of oxygen by the fuel was measured at 125°C, at normal pressure according to the PK method (Ref.6). The corrosion of bronze and the quantity of deposits formed on the metal in fuel mixtures to which elementary sulphur had been added was also determined at 120°C during six hours (Ref. 7).

Card 1/2

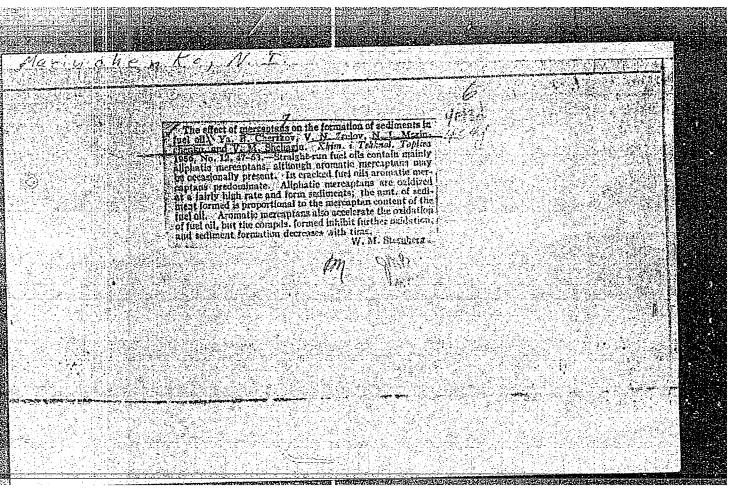
MARINCHENKO N.).
CHERTKOV. Ya.B.; ZRELOV. V.N.; MARINCHENKO, N.I.; SHEHAGIN. V.M.

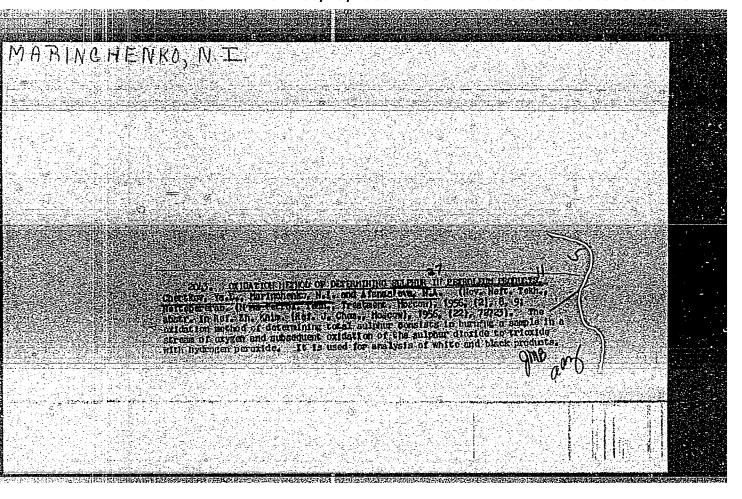
Formation of sediments in fuels for gas-turbine engines.

Khim. i tekh.topl. i masel no.7:57-63 Jl '57. (MIRA 10:10)

1. Nauchno-issledovatel'skiy institut goryuche-smazochnykh materialov. (Jet planes--Fuel)

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MARINCHENKO, A.I., kand.arkhitektury, red.; ZASLAVSKAYA, T., red.;

MEMCHENKO, I., tekhn.red.

[Designing and building school houses] Proektirovanie i stroitel'stvo shkol'nykh zdanii. Pod obshchei red. A.I.Marinchenko. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit. USSR, 1958. 198 p. (MIRA 12:4)

1. Akademiya arkhitektury URSR, Kiyev. Institut arkhitektury sooruzheniy. (Schoolhouses)

MARINCHENKO, A. I.

LAPSHIMA, L. S. ml. neuchn. sotr. i ALESHIN, P. F. Deyetv. Chi. Akalerii USSR D-R Arkhitekhtury Prof., MARINGHENKO, A. I. Kand. Arkh., KOLESNIYOT, V.V. Kand. Arkh.

Intitut Arkhitektury scoruzheniy Akademii Arkhitektury USSR

ARKHITEKTURA SHKOL'NYKH ZDANIY

Page 75

SO: Collection of Annotations of Scientific Research Work on Construction,

completed in 1950,

Moscow, 1951

S/137/62/000/004/193/201 A154/A101

AUTHORS:

Marinchek, V., Limpakh, V.

TITLE:

Gases in ferro-alloys

PERIODICAL: Referativnyy zhurnal, Metallurglya, no. 4, 1962, 5, abstract 4K29 ("27-y Mezhdunar, kongress liteyshchikov, 1960", 1961, 159-172)

Hot-vacuum extraction analysis of ferro-alloys is described. Description is given of an analyzing apparatus, which can operate at up to 2,000°C and must be provided with an instrument for drawing "gas volume diagrams" (gazovologramy). Analysis of various ferro-alloys shows that the content of gases in them varies in a very wide range and depends on chemical composition of ferro-alloys, on their origin, dimensions of their grains, and on the method of storage of same. Smaller pieces of ferro-alloys contain greater amounts of gases: long storage time increases the amount of gas in ferro-alloys - the faster the greater is the affinity of the alloying elements (Ca, Al and others) to O. A recommendation is given on how to select test samples for determination of gas in them.

[Abstracter's note: Complete translation]

Card 1/1

L. Vorob'yeva

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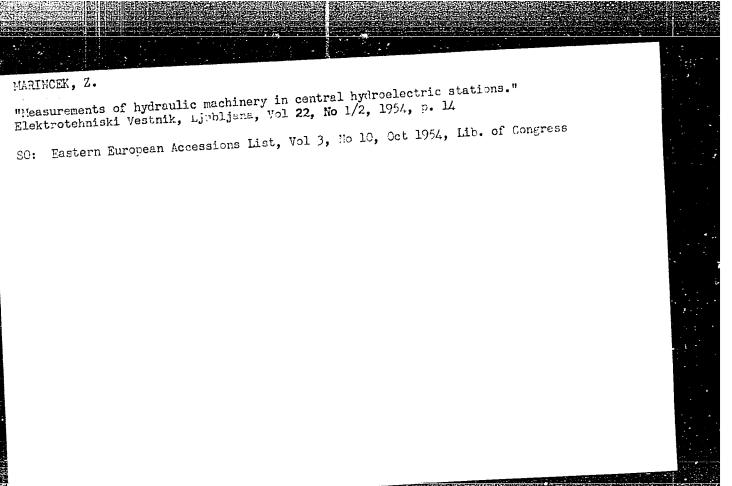
MARINCHAK, L.I. Students of the Saint Petersburg Institute of Forestry in the social democratic movement of the 1830's and 1830's. Nauch, trudy LTA no.95:89-100'61. (MIRA 16:2) (Russian Social Democratic Party) (Leningrad—Students)

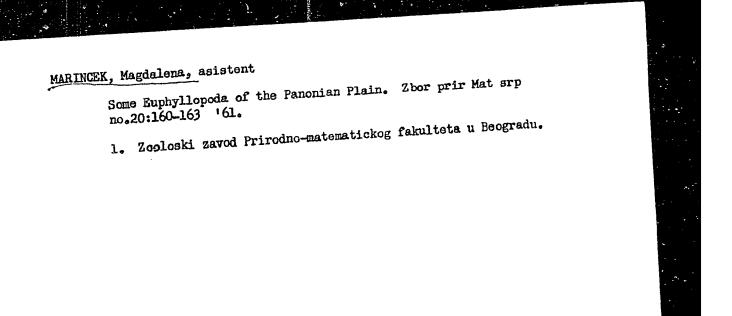
HENEBERG, Dorde, sanitetski potpukovnik, dr.; MARINCEVIC, Predrag, sanitetski potpukovnik, dr.; JOVANOVIC, Tihomir, sanitetski kapetan I klase, dr.

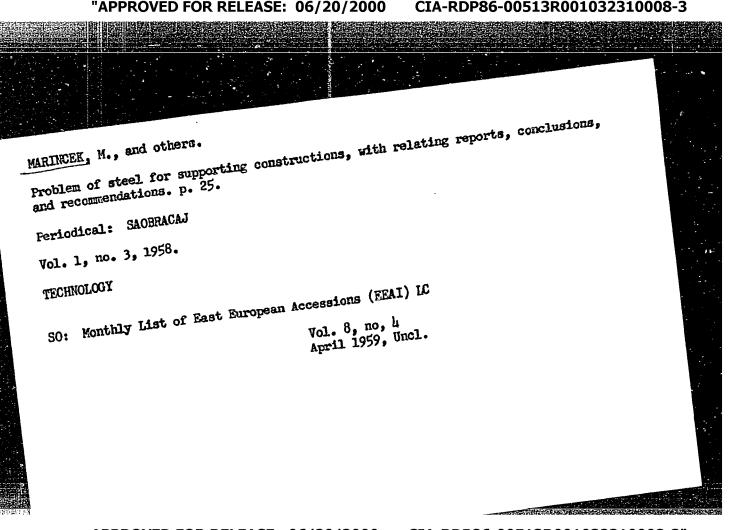
Laboratory and field evaluation of our 1st vaccine against influenta. Voj.san.pregl. 18 no.4:345-350 Ap '61.

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(INFLUENZA immunol)







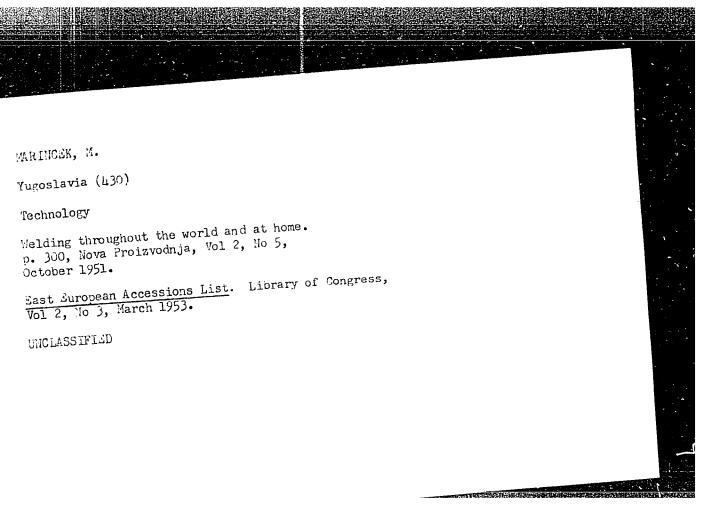
Marincek, M

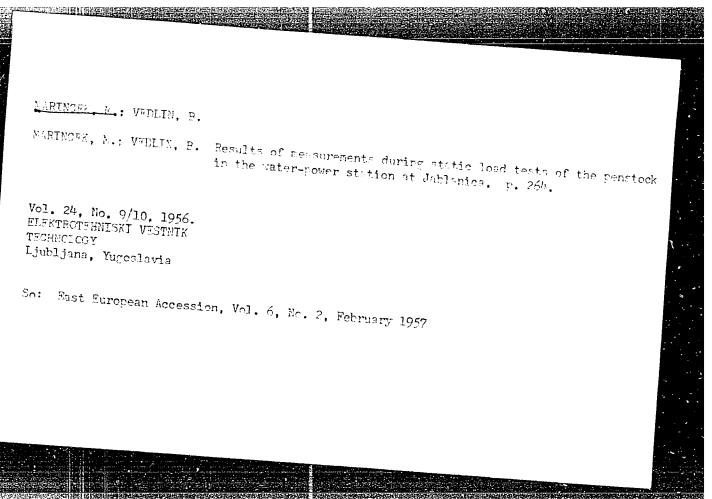
Contribution to the study of metals by means of bending, according to the Yugoslav C. AL. 005 standard. p. 121

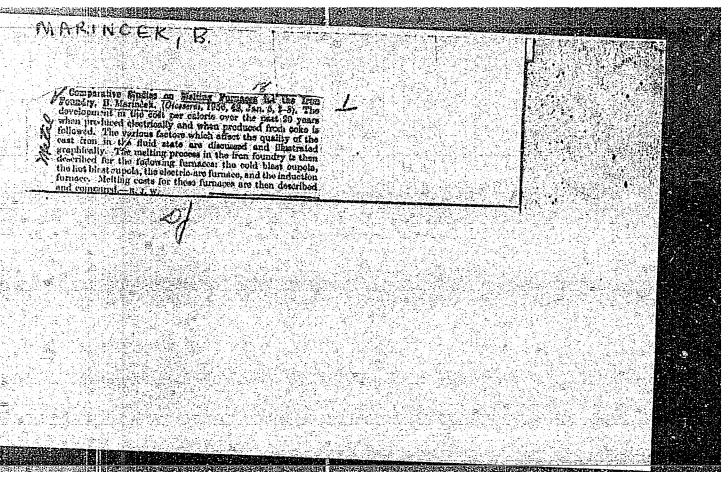
STANDARDIZACIJA. (Savezna komisija za standardizaciju) Beograd.

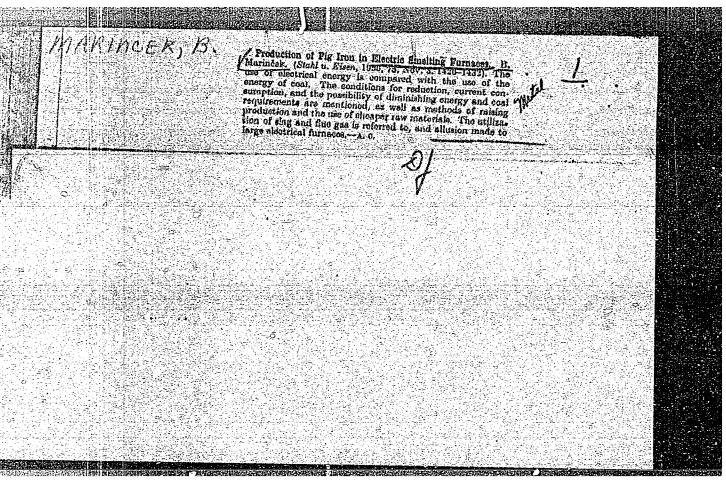
Vol. 6, no. 3, March 1956.

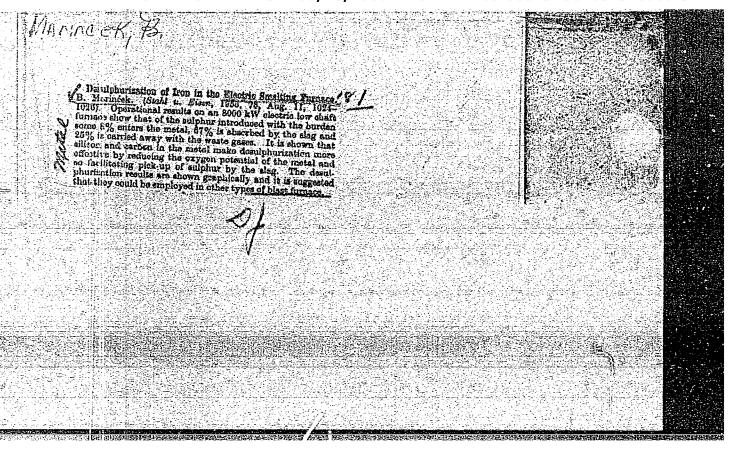
SOURCE: East European List (EEAL) Library of Congress, Vol. 6, No. 1, January 1957











MARINCEANU, Gheorghe, ing.

Technological and scientific contributions. Industria usoara 10 no.12:548-551 D.63.

1. Director tehnic al Fabricii de pielarie si icaltaminte, Cluj.

MARINCEANU, Gh., ing.; MUSTEA, I., ing.

Use of synthetic resins in tanning industry. Industria usoara 3 no.11:443-447 N '56.

RUMANIA / Chemical Tochnology. Chemical Products and H
Their Application. Leather. Fur. Collatin.
Tanning Fatorials. Industrial Proteins.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33661.

Abstract: now in the drum at 40° by a solution of dinaphthylmethanedisulfenic acid. The flexibility of the leather may be regulated by the quantity of I and the depth of its ponetration; the strength of the leather is regulated by the quantity of dinaphthyldisulfenic and exalic acids. -- G.

Markus.

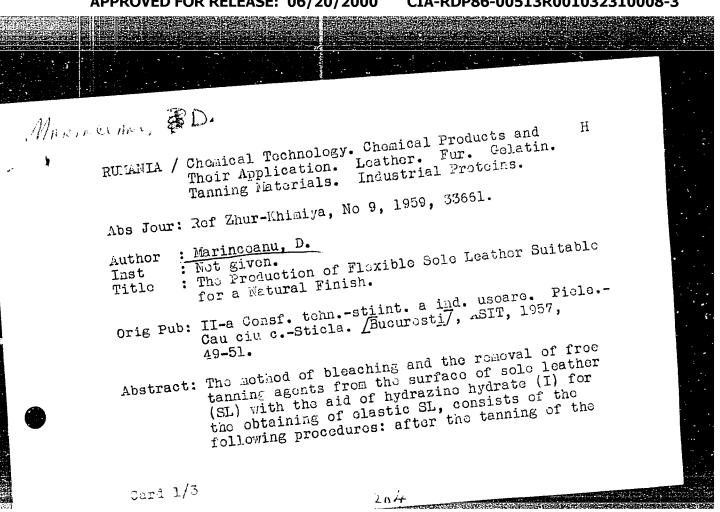
Card 3/3

RUMANIA / Chemical Technology. Chemical Products and H
Their Application. Leather. Fur. Gelatin.
Tanning Materials. Industrial Proteins.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33661.

Abstract: leather, 0.5% (from the weight of the tanned leather) of the mixture (2:1) of I and a solution of ammonia, diluted with water (1:1), is added to the drum, and the drum is rotated at 40° for 5-10 minutes; 3% (from the weight of the tanned leather) of diphenylmethanedisulfonic acid mixed with water (1:1) is added next, and the sum is rotated for 15 minutes. The obtained leather does not contain free tanning agents in the surface layer and has a light uniform color. A color of greater uniformity is obtained if both sides of the leather are treated with the solutions of I and ammonia; the leather is processed

Card 2/3



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